

Remarks:

Reconsideration of the application is requested.

Claims 1-9 remain in the application. Claims 1 and 7 have been amended. Claims 8-9 have been withdrawn from consideration at this time.

In the paragraph bridging pages 2 and 3 of the above-mentioned Office action, claims 1-2 have been rejected as being unpatentable over Gorthala et al. (US Pat. No. 6,007,655) under 35 U.S.C. § 103(a).

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the references. However, the language of claim 1 has been amended to even more clearly define the invention of the instant application. Support for the changes can be found on page 5 lines 4-5 of the specification.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, inter alia:

placing a first, high-strength material into a shaping mold;

introducing a second material having a lesser strength than the first material into the mold with a process selected from the group consisting of casting and injection molding when the first material has a given amount of residual heat; and

bonding the first and second materials to a composite by utilizing the given amount of residual heat of the first material.

Gorthala et al. disclose a method for die-drawing of plastic composite parts of several plastics. In contrast, a person skilled in the art after reading the entire content of the invention of the instant application can only conclude that the claimed method is not for the production of continuous compound components. Rather, the method according to the invention of the instant application intends the manufacturing of a composite body to be in an enclosed mold (see "after a cooling period, the slide is closed, and, in a subsequent operation, a material with lower strength is introduced into the free space of the remaining mold cavity" on page 5, lines 8-11 and "There is also the possibility of inserting a prefabricated component into the higher-strength region, ... " on page 5, lines 13-14 of the specification). The finished composite body will be taken out of the mold after the manufacturing process before a new composite body can be manufactured. This manufacturing method is different from the die-type manufacturing process as disclosed in Gorthala et al.

In Gorthala et al., the first plastic material is preformed in a first heated die before it is pressed or drawn into a second heated die together with the second plastic material. This method fundamentally differs from the method of the invention of the instant application in that according to the method of the invention of the instant application, a first material is placed in a mold and then a second material is introduced in the same mold.

In Gorthala et al., the individual component is hardened and a connection between the two materials is produced due to the heat supplied by the heated dies. In the method of the invention of the instant application, however, the connection of the materials is at least partly effected with the help of the residual heat of the first material. Gorthala et al. do not provide a person skilled in the art any hint that the first material has a residual heat when the second material is introduced in the mold.

Gorthala et al. disclose that the composite material can be produced from different types of plastic. However, Gorthala et al. do not disclose or suggest that a composite body can be produced through mold bonding of a material having a higher strength with a material having a lower strength so that the

composite body can elastically absorb the extremely high load and at the same time have a relatively low weight.

Claim 1 is, therefore, believed to be patentable over Gorthala et al. and since claim 2 is dependent on claim 1, it is believed to be patentable as well.

In the paragraph bridging pages 3 and 4 of the above-mentioned Office action, claims 3-4 have been rejected as being unpatentable over Gorthala et al. in view of Bertschi et al. (US Pat. No. 5,651,998) under 35 U.S.C. § 103(a).

With regard to claim 3, as already discussed above, Gorthala et al. do not provide a person skilled in the art any hint that the first material has a residual heat when the second material is introduced in the mold. Bertschi et al. disclose a method for manufacturing a composite body from different materials in a mold having two halves, each having an injection nozzle through which different materials are injected into the mold halves. Bertschi et al. also disclose that the two halves can be separated by a slide which is removed before the injection of the two materials. However, Bertschi et al. do not disclose or suggest that the first material has a residual heat when the second material is introduced into the mold so that the connection between the two materials can be effected by the use of the residual heat of the first material.

With regard to claim 4, the Examiner has stated that the passage in column 6, lines 43-46 of Bertschi et al. discloses the insertion of a prefabricated component (see page 4, line 1 of the Office action). However, Bertschi et al. only disclose that a "metered shot" is injected in the mold. A person skilled in the art would know that the material brought in the mold by the "metered shot" is viscous, which matches the mold and is therefore not a prefabricated component.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 3 or 4. Claims 3 and 4 are, therefore, believed to be patentable over the art. Claims 3 and 4 are also believed to be patentable because they are dependent on claim 1, which is believed to be patentable as discussed above.

In the paragraph bridging pages 4 and 5 of the above-mentioned Office action, claims 5-7 have been rejected as being unpatentable over Gorthala et al. in view of Uhlig (US Pat. No. 4,170,622) under 35 U.S.C. § 103(a).

With regard to claim 5, Uhlig discloses a method for producing stable hollow articles, for example, bottles. However, it is

questionable why a person skilled in the art who wants to produce the high-strength composite body would even consult Uhlig. Uhlig only discloses a complicated multi-stage process for producing a hollow article with ribs projected inside and a smooth exterior surface. The method disclosed in Uhlig cannot provide any motivation for a person skilled in the art to provide ribs in the first material in order to increase the strength of a composite body. Neither Uhlig nor Gorthala et al. contain any hint toward this function.

With respect to claim 6, although Uhlig describes a hollow body, a person skilled in the art would not obtain any hint from Uhlig that a hollow space increases the strength and load-carrying capacity of a composite body. Since Uhlig only concerns a hollow article, it is not clear how Uhlig would provide any hint that a hollow portion in a composite body would influence the characteristics of the composite body.

With respect to claim 7, although Uhlig forms the hollow article with ribs, the method of Uhlig does not provide a person skilled in the art with any hint toward injecting an inert gas in the first material in order to produce a hollow space when the material is still in the plastic phase, as recited in claim 7 of the instant application. The advantage of the composite body produced according to the method of the invention of the instant application cannot be obtained from

Uhlig or Gorthala et al. It is, therefore, not clear how a person skilled in the art can be motivated by the cited references to inject a gas in the first material of the composite body in order to effect the desired characteristics of the composite body.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 5, 6 or 7. Claims 5-7 are, therefore, believed to be patentable over the art. Claims 5-7 are also believed to be patentable because they are dependent on claim 1, which is believed to be patentable as discussed above.

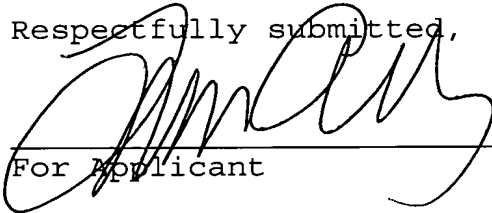
In view of the foregoing, reconsideration and allowance of claims 1-7 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made. Please charge any fees which might be due with respect to Sections 1.16 and 1.17 to the

Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,



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May 19, 2003

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